Data Mining Exam

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Agenda

Clustering

Shrinkage

Classification

Trees

Support Vector Machines

Neural Networks

Clustering
Introduction

- **Clustering** is a way to categorize data to impose structure.
- A use case is recommender systems (Amazon, Spotify, Netflix), where a user is recommended items that bought/listened to/watched by other users with similar interests.

Clustering
K-Means

Clustering
Hierarchical Clustering

Shrinkage
Lasso

Shrinkage
Ridge Regression

Shrinkage
Elastic Net

Classification
Linear Discriminant Analysis (LDA)

Classification
Quadratic Discriminant Analysis (QDA)

Classification
Naive Bayes

Trees

Classification and Regression Trees (CART)

Trees
Bagging

Trees
Random Forest

Trees
Boosting

Support Vector Machines

Neural Networks